

Methodology and Technical Summary

MDNA

By Ed Kang
Creator of MDNA

INTRODUCTION OVERVIEW

MDNA is a framework that combines principles of intrinsic motivation and social DNA for personal and organizational transformation. MDNA starts with an assessment that identifies your Motivational Value System (MVS) delivered through MDNA Cloud, a proprietary analytics and engagement software platform.

MDNA is different from other assessments because it focuses on intrinsic motivation and impact on social DNA. Many have told us that MDNA “goes deeper.” While other frameworks focus on psychological temperament or strengths, MDNA answers the question, “why we do what we do” from a social perspective. Psychological temperament and strength inventories are of no value without intrinsic motivation and engagement to use them. This is why starting with intrinsic motivation, which is embedded into your social DNA, is the first key to professional success and personal fulfillment—complete transformation.

The MDNA methodology is supported by social psychology called Self Determination Theory which was made mainstream by the best-selling book *Drive: The Surprising Truth of What Motivates Us* by Daniel Pink. The social science cited in *Drive* was pioneered by Edward L. Deci, Ph.D., Professor of Psychology and Gowen Professor in the Social Sciences at the University of Rochester, and director of its human motivation program. Deci also collaborated with Richard M. Ryan an American professor of psychology, psychiatry and education, also at the University of Rochester.

Beyond published research, the entire MDNA model is built upon analysis of historical trends and best-practice with extensive user testing since 2009. MDNA is currently utilized in industries such as HR, management consulting, brand strategy, leadership training, and executive coaching. On average, five individuals take the MDNA assessment every day around the globe. This number increases every year.

“HOW DO WE MOTIVATE PEOPLE?”

This is an age old question. Managers and executives have been asking this of themselves and their staff since the industrial revolution. Corporate practice has changed over the years, but the challenge has remained the same. This is only amplified by multi-generational workplaces and communities. It seems that what motivates us is constantly shifting with trends and culture.

As valid as the question is, “How do we motivate people?” is the *wrong* question.

The real question needs to be, “How do we create a culture where people motivate themselves?”

This is the essence of intrinsic motivation and social DNA—the heart of MDNA. Only when people are motivated from within themselves, versus extrinsic incentives such as money, status or approval that have been scientifically proven ineffective long-term, can an individual and organization experience true transformation.

“I believe in the transformational power of human purpose, passions and potential. I also believe we are all uniquely designed for professional success and personal fulfillment. And if we synchronize our purpose, passions and potential, first within ourselves and then with others, we collectively can, without trying to sound cliché, change the world. ”

— Ed Kang, Creator of MDNA

MDNA

MDNA stands for “Motivational DNA” because it combines the principles of intrinsic motivation and social DNA for individual and organizational transformation. MDNA is also an acronym for a progressive process designed to accelerate human purpose, passions and potential for socioeconomic value.

1. Motivate
2. Develop
3. Network
4. Accelerate

STEP 1: MOTIVATE

An online assessment to identify Motivational Value Systems made up of the top two out of seven MDNA gifts.

STEP 2: DEVELOP

The MVS is used to identify challenges and opportunities for professional success and personal fulfillment.

STEP 3: NETWORK

MDNA Cloud provides a map of the social and strategic asset network. Measured dimensions include:

1. Innovation
2. Productivity
3. Change
4. Knowledge
5. Expansion
6. Community

STEP 4: ACCELERATE

MDNA action and accountability planning to accelerate results.

DIFFERENTIATION

Intrinsic Motivation

MDNA is based upon the social science of intrinsic motivation. Intrinsic motivation refers to motivation that comes from inside an individual rather than from any external or outside rewards, such as money.

The most commonly popular personality tests, such as Myers-Briggs Temperament Indicator (MBTI), are designed to determine psychological preferences in how we perceive the world which then determines our decisions. Additional tests expand psychographic questioning to measure personality temperaments and traits. One of the major criticisms about this type of personality testing is accuracy. To address this, psychologists have developed advanced techniques to improve this.

The other popular form of psychographic assessment is based on strengths and talents. StrengthsFinder is one of the more popular versions of this. These are excellent for helping an individual gain a better understanding of how to be successful, by focusing on strengths rather than working on weaknesses, especially in the workplace.

While we wholeheartedly support strengths and talents assessment, the obvious drawback is that unless an individual is motivated to use them, strengths and talents represent very little value. This is precisely why intrinsic motivation becomes increasingly vital.

MDNA is designed to take inventory of the Motivational Value System. In essence, what we value motivates us and determines how we act. While there is a strong correlation between this and personalities, we believe Motivational Value Systems can be organized into major themes, much like many other psychographic profile systems available on the market.

Social DNA

Second, we believe in the existence of social DNA. Think of it like genetics. Your DNA determines your traits such as whether you are male or female, have red hair or the potential to be a world-class athlete. We believe in social genetics. This is how the MDNA of an individual—specifically the leadership—determines the social dynamics of a group of people.

Just like our physical traits however, social DNA needs to be nurtured. You don't get to the Olympics without doing what it takes to unlock your potential. Beyond genetics there is the field of epigenetics. Epigenetics is the study of how genes are turned on or off because of various factors such as our environment. Using the MDNA framework, we are constantly researching

how to unlock the social DNA of an organization by tapping into the individual and collective Motivational Value Systems.

Intrinsic motivation and social DNA is why we believe MDNA is special. Almost daily we learn something new about MDNA's potential and receive a testimonial from a user to validate our core beliefs.

SELF-DETERMINATION THEORY

According to the summary of the bestselling book *Drive: The Surprising Truth of What Motivates Us*:

Most of us believe that the best way to motivate ourselves and others is with external rewards like money—the carrot-and-stick approach. That's a mistake, Daniel H. Pink says in his provocative and persuasive new book. The secret to high performance and satisfaction—at work, at school, and at home—is the deeply human need to direct our own lives, to learn and create new things, and to do better by ourselves and our world.

Drawing on four decades of scientific research on human motivation, Pink exposes the mismatch between what science knows and what business does—and how that affects every aspect of life. He demonstrates that while carrots and sticks worked successfully in the twentieth century, that's precisely the wrong way to motivate people for today's challenges.

In *Drive*, Daniel Pink introduces readers to the social science of Self-Determination Theory.

Self-Determination Theory (SDT) is a theory of human motivation. According to a network of researchers around the world, SDT focuses on how to support our natural and intrinsic tendencies to operate in healthy and effective ways. SDT helps us understand how extrinsic forces interact with an individual's intrinsic motivations and inherent needs to be mobilized and mobilize others.

SDT is important to MDNA because it is meta-theory. According to SDT researchers:

SDT represents a broad framework for the study of human motivation and personality. SDT articulates a meta-theory for framing motivational studies, a formal theory that defines intrinsic and varied extrinsic sources of motivation, and a description of the respective roles of intrinsic and types of extrinsic motivation in cognitive and social development and in individual differences. Perhaps more importantly SDT propositions also focus on how social and

cultural factors facilitate or undermine people's sense of volition and initiative, in addition to their well-being and the quality of their performance. Conditions supporting the individual's experience of autonomy, competence, and relatedness are argued to foster the most volitional and high quality forms of motivation and engagement for activities, including enhanced performance, persistence, and creativity. In addition SDT proposes that the degree to which any of these three psychological needs is unsupported or thwarted within a social context will have a robust detrimental impact on wellness in that setting.

Using the meta-theory of SDT, we developed MDNA to focus on individual and cultural patterns around the three psychological universal needs identified by SDT: *autonomy, competence* and *relatedness*. (In the MDNA framework, we refer to these as *passions, potential* and *purpose* respectively.)

Autonomy (Passions) is our need to perceive that we have choices, that what we are doing is of our own volition, and that we are "self-actualizing" as the originators of our own actions.

Competence (Potential) is our need to feel effective and that our actions have a direct impact on our desired results, demonstrating skill over time, and feeling a sense of growth and flourishing.

Relatedness (Purpose) is our need to care about and be cared about by others, to feel connected to others while feeling we are contributing to something greater than ourselves.

MOTIVATIONAL VALUE SYSTEMS

As introduced, the overarching objective of MDNA is to identify an individual's Motivational Value System (MVS) and nurture it for results. The MVS combines intrinsic motivation and social DNA into major themes—specifically the seven themes we call "gifts" in the MDNA framework.

The purpose of the MVS is to first move past external factors that drive an individual's behavior—rewards, grades, competition, reviews, and the opinions of others—to being motivated from within, such as by interests, curiosity, compassion or a personal values system. Therefore an MVS is built upon the individual's intrinsic purpose, passions and potential and how they lead to creativity, sustained effort and resilience to adversity. A strong MVS creates a happier and healthier outlook on the world, which ultimately leads to performance without the need for external support.

The second purpose of the MVS is to address the frustrations experienced by leaders, managers, mentors and coaches when trying to mobilize others to positive action. Typically, we

ask the question “How can I motivate people?” This is actually the wrong approach and falls into the very trap of extrinsic motivation we should avoid. Instead, we should be asking, “How can I create the conditions within which people will motivate themselves?”

BRAND AND CULTURE

Beyond this, a natural extension of our framework is MDNA’s value to an organization’s brand strategy and its alignment to organizational culture. As we will demonstrate in this document, a principal founder’s MVS drives the success of an organization’s brand and culture. In other words, a founder’s MDNA imprints upon the social fabric of an organization’s brand and how employee culture expresses that brand. This is social DNA in action.

The organization that is able to build a culture where employees are engaged and live the brand boasts a major competitive advantage. This is why a culture built on intrinsic motivation and social DNA makes the major difference. Not only are employees happier, but thrive in an environment of performance that drives results as well. This is where MDNA is not only different, but a difference maker as well.

We will expand on brand and culture applications of MDNA later in this document.

DEVELOPMENT APPROACH OF THE 7 GIFTS

At the core, MDNA is comprised of seven “gifts.” We call them gifts to indicate how and what an individual is intrinsically motivated to give to the world. For each gift, we carefully chose an acronym to help with an immediate understanding of its purpose, passions and potential.

1. **UCD:** Unyielding Conviction & Design
2. **SSA:** Sacrificial Service & Authority
3. **KWR:** Knowledgeable Wisdom & Responsibility
4. **EIA:** Empowering Inspiration & Attraction
5. **CVS:** Compelling Value & Stewardship
6. **DLF:** Dominion Leadership & Freedom
7. **IAF:** Intuitive Alignment & Fulfillment

The seven gifts were identified by researching expression patterns of human systems. These patterns were found across historical references and cultural trends which revealed social DNA. Multiple thought leaders had observed and recorded this social DNA in different contexts. It was just a matter of identifying and validating the seven gifts as seven common themes of Motivational Value Systems.

Through initial testing, we showed that every individual could exhibit qualities of all seven gifts. Therefore we took an approach common to strengths and talent assessments by ranking the gifts by developmental dominance. We settled on assigning individuals their top two gifts, effectively creating 42 different combined profiles.

These seven gifts have been extensively cross-referenced with leaders and influencers throughout history. Recurring patterns of these MVS themes were validated through individuals assessed today.

At this point we fully recognize that we have “stood on the shoulders of giants” in terms of our research. Without them, we would have never been able to add our own insights or expand on the foundations. With that being said, all MDNA terminology and software platform are completely unique for our purposes.

THE ASSESSMENT

The initial assessment questionnaire was delivered manually, followed by an interview to validate results and gather feedback. Several different individuals were used to deliver the assessment in order to eliminate any bias. While no official count is available, it is estimated over a thousand individuals were manually assessed across multiple real-world situations from job applicants in specific industries, to individuals in personal scenarios such as attending a dog training school to see if there were any patterns between owners and pets (yes, we actually did this).

By taking this manual approach, we were able to adjust the questions in an attempt to eliminate any gaming of the assessment. The feedback was invaluable which then led to several revisions. All questions are designed to simulate positive workplace situations so that individuals would not adjust their responses to avoid negative connotations.

In 2013, we launched an online version of the assessment which would eventually become our software product called MDNA Cloud.

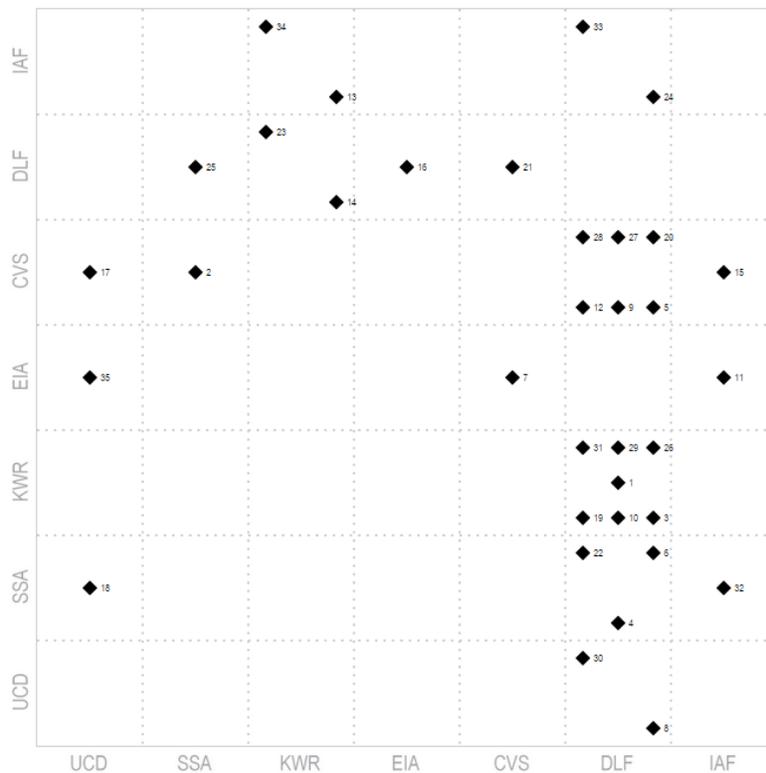
MDNA Cloud is now accessed daily online by individuals across North America. To date, there are over 2,500 users that are providing continual data into the system. Between 30-60 users are added to MDNA Cloud on a weekly basis. After completing the assessment, individuals are asked how accurate their results are so there can be continuous improvement. Currently, the results of this survey are:

- Highly Accurate 56%
- Generally Accurate 40%
- Somewhat Accurate 4%
- Not Accurate at All 0%

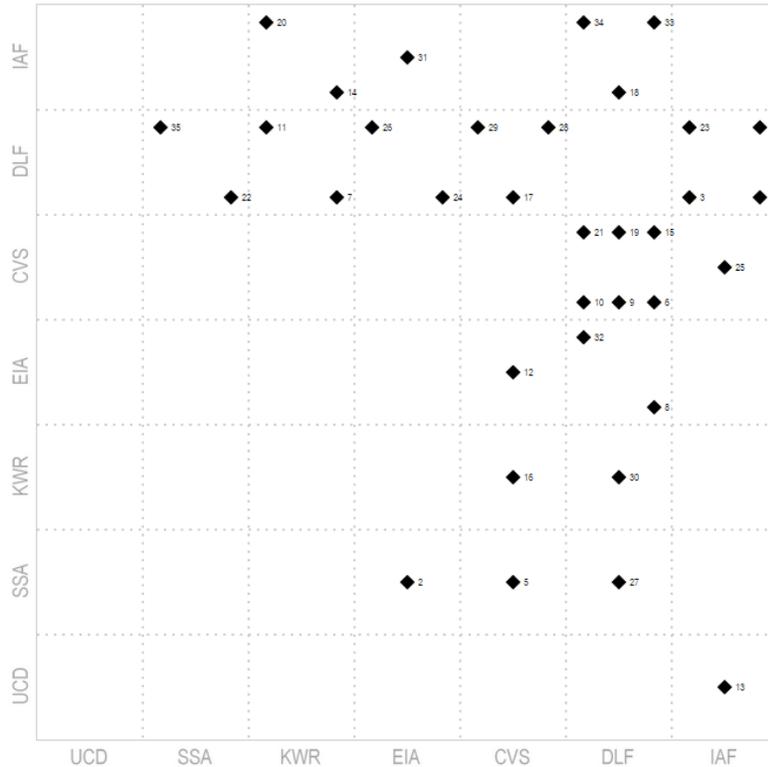
VALIDATION THROUGH VIZUALIZATION

The MDNA Cloud software was designed to assist in further validating the accuracy of the assessment. By visualizing the data on a graph, we are able to compare MDNA results to specific careers and industries. This provided effective predictive analytics to help organizations measure and manage culture in functions such as hiring practices and employee management programs.

For example, this first graph represents 35 project managers in the construction industry. As the results show, 74% of assessed individuals possessed the DLF gift. These individuals were then tracked by their performance and social engagement within the organization over multiple years for further validation.



In this next graph, we took the same approach, but this time with the administrative staff also in the construction industry. As with the previous sample, 74% of the 35 assessed individuals possessed the DLF gift. This provided an interesting correlation to validate our predictions of how the project managers would interact with the administrative staff.

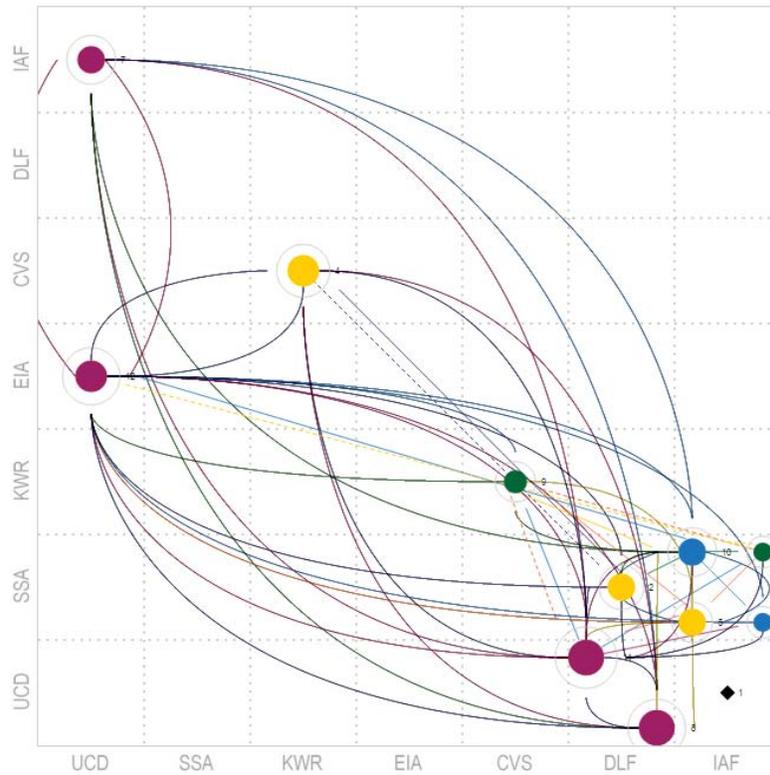


The above is just one example of the regular testing and analysis conducted on behalf of our client organizations.

ADDITIONAL VISUAL ANALYTICS

It was immediately apparent that the ability to visualize MDNA results could be expanded into additional possibilities. A regular theme we encountered, while gathering user feedback, was the challenge of providing hard data around soft concepts such as engagement, confidence, trust and other metrics of organizational culture.

So with some additional investment into MDNA Cloud, we added additional visual analytic tools. A full assessment of a group of individuals can now be represented in the manner below.



Each new metric we added was represented by an index and measured by asking the individual an additional set of questions.

Self-Determination Index (SDI) measures an employee’s level of intrinsic motivation at work in the areas of competence, autonomy and relatedness.

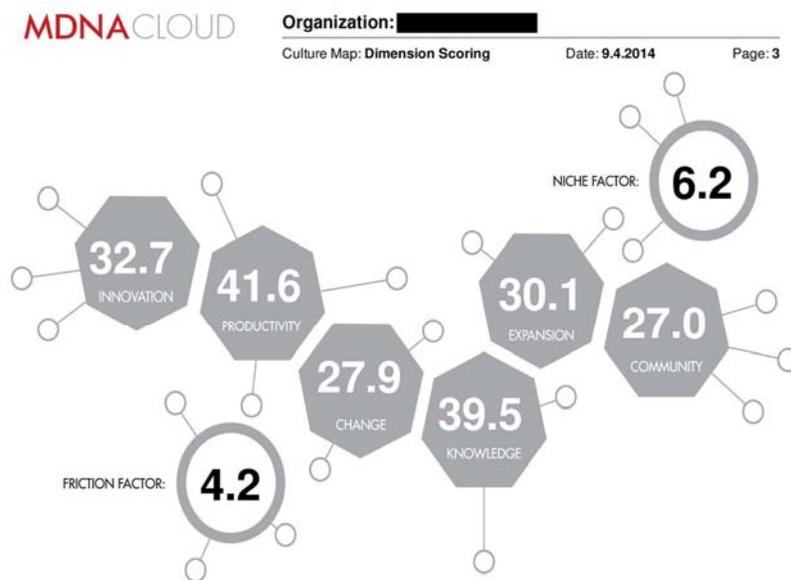
Confidence & Change Index (CCI) measures an employee’s level of awareness, desire, and knowledge for change, along with the level of motivation to apply and reinforce that change as a part of the employee community.

Social Engagement Index (SEI) measures the level of trust and belief between employees based upon their own perception and perception of others.

Using this data, we are then able to implement an algorithm that scores the organization's culture in the following dimensions:

1. Innovation
2. Productivity
3. Change
4. Knowledge
5. Expansion
6. Community

In addition, we are able to measure the potential friction between individuals because of their differing Motivational Value Systems, along with a niche factor which shows a potential multiplier of results should the organization focus on a particular set of MDNA core competencies.



CALCULATING THE DIMENSIONS OF CULTURE

The culture dimension algorithm takes into account multiple factors of each MDNA gift and engagement data provided by users. Essentially, each gift is assigned a value based upon past employee performance data across each culture dimension. These values are then influenced by the SDI, CCI and SEI indices. For example, the more self-determined an individual is, the more productive they will be. And the more socially engaged a group is, the stronger their

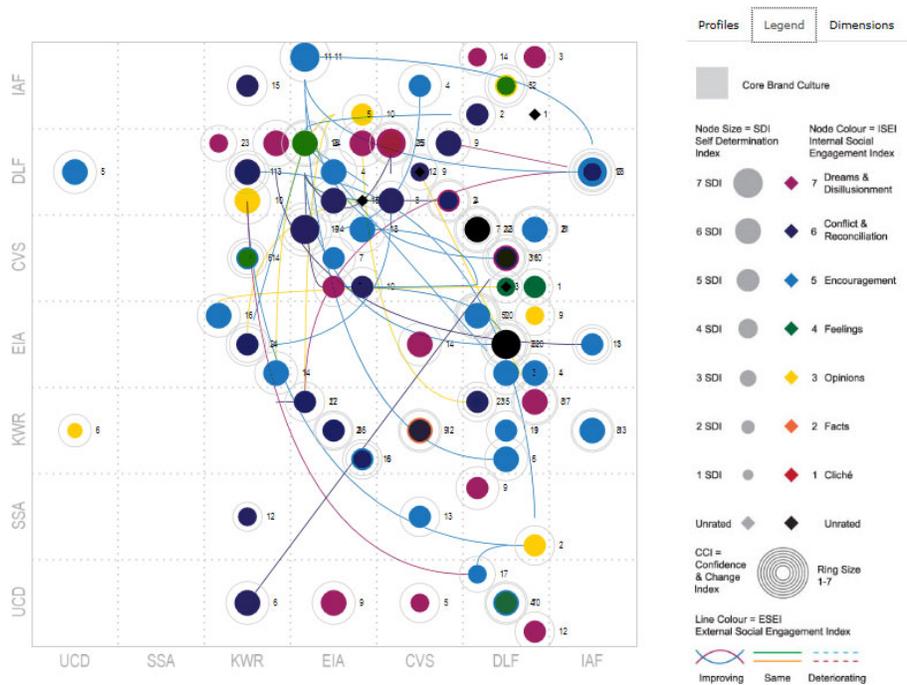
community culture will score. As employee engagement improves, so does each culture dimension. Of course, the inverse is also possible.

MEASURING ENGAGEMENT OVER TIME

A natural application request from clients is the ability to measure employee engagement over time. In essence, when combined with key performance indicators from the organization, the potential to measure ROI in relation to employee engagement is exciting.

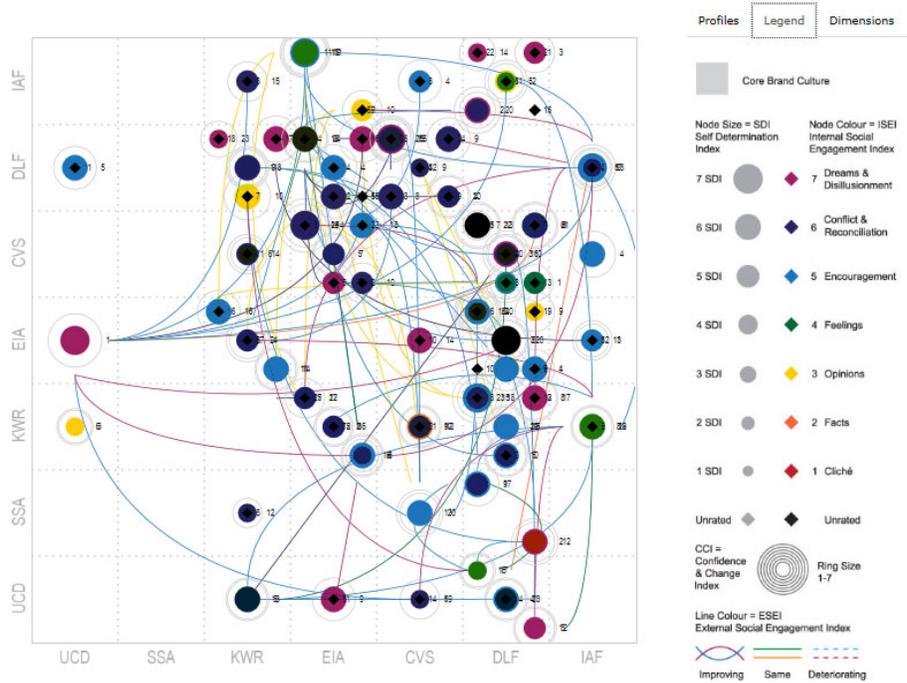
To test this capability, we were asked to facilitate the CIO Association of Canada’s annual peer forum conference in April 2013. A test sample of 70 individuals from multiple companies was assessed before coming to the event. Then we worked with a leadership and management expert to facilitate engagement exercises over the course of two days. The goal was to see how quickly a culture of engagement could be developed and improved in 48 hours.

This was the visual map of the CIO test sample’s culture before the event:



As you can see by the legend, each node indicates specific attributes of engagement. The lines between each node represent a relationship at a certain level of social engagement.

With focused effort on building engagement, this is what the sample looked like on day two of the conference:



Visually, one can immediately see the increase in positive social engagement amidst individuals—many of which had never met each other until the conference—with a curving line which indicates an improving relationship. The size of the node and the outer ring of the node also indicated an improving level of self-motivation and confidence in the community.

We have demonstrated this ROI across multiple companies that have been committed to properly assessing and managing based upon results and other KPIs that indicate a strong culture of employee engagement.

BRAND CULTURE

Through our partnership with Envision, a brand strategy firm that embraced MDNA in its early stages, it was natural to explore how MDNA impacts an organization’s brand. Envision understood the principle that an organization’s brand should be aligned to its culture and vice versa.

Using brand strategy as a starting point, we fundamentally understood that a principal founder’s intrinsic motivations, their Motivational Value System, would imprint upon the organization’s social DNA as a whole which has a direct impact on culture. After all, it is a founder’s vision, driven by their purpose, passions and potential, that makes up the lens in which branding

decisions are made. This is precisely how two companies with the exact same product, in the exact same industry, can have such different brand strategies and organizational cultures.

Furthermore, a founder's intrinsic motivation would determine the type of leadership management as the organization grew. The MVS of each manager would create a unique social DNA mix with the founder's gifts, which in turn would shape the organization's brand and culture.

With further research, and live test opportunities provided by Envision, we were able to adapt MDNA to help organizations create powerful brand strategies that aligned with the founder's MVS and the organizational culture. This is now referred to as "brand culture" services.

Each gift is translated into a Core Brand Culture, which is like a brand profile for the organization. Extensive research was performed to look for patterns within some of the most well-known brands today. Each profile represents a core competence and differentiator that is most common to an organizational founder's MVS.

1. **UCD:** Innovative Paradigms (Nike, Pixar, 4 Hour Workweek/Chef/Body)
2. **SSA:** Leadership Platforms (UPS, Twitter, Southwest Airlines)
3. **KWR:** Perfecting Precision (Volvo, HP, Netflix)
4. **EIA:** Social Experience (Facebook, Coca-Cola, Ultimate Fighting Championship)
5. **CVS:** Valued Access (McDonald's, Microsoft, Indiegogo)
6. **DLF:** Scalable Systems (IBM, Walmart, Google)
7. **IAF:** Intimate Ecosystems (Apple, Cirque du Soleil, Disney)

IDENTIFYING BRAND CULTURE

Just like with individuals, hundreds of companies have been researched to validate the MDNA framework to its correlating Brand Profile. The first challenge to this was that, understandably, the principal founders of an organization could not be assessed using the standard MDNA tools. Therefore a different approach was required.

An additional series of questions was developed to compensate for lack of a formal MDNA assessment. These questions are used with Envision’s brand culture clients today.

1. **Purpose** – What was the original vision of the founder?
2. **Promise** – How will the lives of customers improve if they do business with the organization?
3. **Personality** – How does the organization deliver the promise?
4. **Product** – What does the organization actually sell?
5. **Positioning** – How is the organization different from the competition?
6. **People** – Who were the individuals, past or present, that made the biggest impact on the organization and how?
7. **Place** – Does the physical location and geographic area play a factor in the organization’s success?

MUHAMMAD ALI

Our most popular MDNA and Brand Culture case study is working with the Muhammad Ali Center located in Louisville Kentucky. Envision was contracted to re-brand and revitalize the non-profit’s image.

Our first step was to identify Muhammad Ali’s Motivational Value System. Unfortunately, due to Ali’s current battle with Parkinson’s disease, he could not be assessed directly. The alternative method was accomplished by reading articles, biographies, watching documentaries and live video clips. We also had an exclusive opportunity to interview Lonnie Ali, Muhammad Ali’s wife.

Once the heavyweight champ’s MVS was identified (UCD/EIA), it became a foundation for us to build the rest of the brand strategy. This included a visual identity, core messaging and additional marketing tactics.

The most dramatic impact of understanding Muhammad Ali’s MVS was experienced in the Ali Center’s social media strategy. Using MDNA, we were able to create a psycho-linguistic digital footprint. In other words, we created and managed a concise voice for the “Greatest” on social media.

When Envision took over the Ali Center’s social media in June 2012, Muhammad Ali’s Facebook page had 973,424 likes. The center had been operating the Facebook page for several years but could not gain the reach that was reflective of arguably one of the most popular athletic icons in the world.

Within 17 months, Envision was able to increase Facebook Likes to over 3.5 million. After 24 months, the Ali Center’s staff was trained to follow the MDNA-based strategy. Today, the Muhammad Ali Facebook page operated by the Ali Center has reached over 10 million likes.

Another milestone we achieved was Facebook awarded the Ali Center’s page with official verified status. This was a major victory against competitors including the page operated by the media company that legally owned Muhammad Ali’s commercial rights. Considering the non-profit budget at Envision’s disposal, this was a major victory for the credibility and efficacy of MDNA.



CONCLUSION: THE MDNA STORY

At the beginning of 2008 I had, working as a COO successfully accomplished an item on my personal bucket list—taking a company public. While it wasn’t the grand IPO I had initially envisioned, I was satisfied with our penny stock holdings corporation. At the height of our self-made success, our market capitalization was \$55 million.

Of course by the end of the year, the global economic recession changed everything.

Over the next 12 months, I went from fortune to famine. Our family's net worth was completely wiped out and then some. As a company, we did everything we could to stop the bleeding. Our decisions only seemed to make things worse. Our stakeholders lost millions in assets. But the lowest point was telling my wife that our home was being foreclosed on by the bank. It was one of the most difficult periods of my life.

During my personal economic recovery, I began asking myself an important question, "*Why do I do what I do?*" My experiences and decisions during the economic crisis changed me—in both positive and negative ways. It was an important time for introspection.

This was when I was introduced to the psychographic assessment industry—otherwise known as "personality testing." It started with the more popular assessments such as Myers-Briggs and StrengthsFinder. But through deeper exploration, I discovered more obscure yet accurate personality frameworks. My picture of self-awareness started coming together one puzzle piece at-a-time.

I had several "Aha!" moments through the hours of research, but there was something still missing for me. There seemed to be such a wide spectrum of opinions out there, from psychological to spiritual and cultural viewpoints, when it came to the human personality. I kept digging.

This is when I began dabbling in creating my own personality test trying to improve on what I was learning. I couldn't help myself. It's naturally who I am. I began testing my ideas on any poor soul that would agree to be subjected to my crazy ideas around the end of 2009.

Months later, as I continued my personal experimentation, I read the book *Drive: The Surprising Truth of What Motivates Us* by Daniel Pink. I was introduced to the concept of intrinsic motivation and Self-Determination Theory. This opened up an entire new avenue of social science to explore. The power of intrinsic versus extrinsic motivation was a no-brainer to me. But now I had the contemporary research to back it up.

I quickly realized that, at least to me personally, the most effective psychographic frameworks, touched on intrinsic motivation. Yet I could not find any specific assessments or systems (outside of paying thousands for training and certification that is) that really encapsulated what I was looking for.

This is when my previous "Aha!" moments turned into "Aha!" ideas, which eventually morphed into an entire "Aha!" vision.

I decided to combine all my research of personality tests and intrinsic motivation into one consolidated framework that could be used to solve my personal and professional problems.

You see, by this time I had become the executive director for a socially responsible business conglomerate. This meant I experienced daily management challenges, especially when it came to the differences between generations—Baby Boomers, Generation X (where I fall) and Millennials (also known as Generation Y).

It was also during this time, I was still working through my previous business failure. Therefore advancing MDNA was also a form of self-therapy. I'm convinced it saved my marriage and helped raise our children through the negative circumstances.

Part of my social business portfolio was taking teams of volunteers, most of them complete strangers, down to third world countries for humanitarian relief projects. As you can imagine, this presented an even different set of challenges where a personality framework to make decisions would be quite useful. In fact, it was the experience of a complete breakdown in social dynamics between me and our team during one trip to Nicaragua that provided more than ample motivation to refine MDNA as a tool.

It's been inspiring to see how MDNA has impacted others, especially knowing that MDNA was birthed as a result of my own emotional pain and financial turmoil. I learn something new every time I use MDNA with a client or project. I talk to users every day and ask them how MDNA can solve their own problems. I've had the tremendous blessing of collaborating with researchers, thought leaders, associates and close friends, to help the "Aha!" vision become a reality.

~ Ed Kang